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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,270

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EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT

PAPER NUMBER

1792

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 10/531,270	<b>Applicant(s)</b> IWAKIRI ET AL.	
	<b>Examiner</b> Elena Tsoy Lightfoot	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-16 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/9/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |



***Response to Amendment***

1. Amendment filed on January 9, 2009 has been entered. Claim 6 has been cancelled. No new claims have been added. Claims 1-5, and 7-16 are pending in the application. Claims 8-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Rejection of claims 1-5, and 7 under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim has been withdrawn due to amendment.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Rejection of claims 1-4 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chiba et al (US 6025445) has been withdrawn due to amendment.



6. Rejection of claims 1-4 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Iwahara et al (US 4,904,732) has been withdrawn due to amendment.
7. Rejection of claims 1-4 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hatsutory et al (JP 59078220) has been withdrawn due to amendment.
8. Rejection of claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Chiba et al or Iwahara et al or Hatsutory et al, as applied above, further in view of Kiel (US 3,522,075) has been withdrawn due to amendment.
9. Rejection of claims 6-7 under 35 U.S.C. 103(a) as being unpatentable over Hatsutory et al (JP 59-78220) or Hatsutory et al (JP 59-78220) in view of Kiel (US 3,522,075) has been withdrawn due to amendment.

***Examiner Note***

The language of the *original* claim 6 was as follows: “The sealant according to any of claims 1 to 5, in which the sealant comprises a -COOCH<sub>3</sub> group-containing compound **as a component**”. Since claim 6 didn’t require for the -COOCH<sub>3</sub> group-containing compound to be *different* from the silicon-containing acryl polymer **component** of claim 1, the -COOCH<sub>3</sub> group-containing compound read on **any** sealant *component* having -COOCH<sub>3</sub> group including the silicon-containing acryl polymer component of claim 1.

However, claim 1 as amended now recites *distinctly* that the -COOCH<sub>3</sub> group-containing compound is present in the sealant **in addition** to the silicon-containing acryl polymer.



Thus, amended claims require new grounds of rejection based on new search. The new grounds of rejection are as follows:

10. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isayama et al (US 4543403) (hereafter “Isayama et al”).

Isayama et al discloses a moisture curable composition which is curable even at ordinary temperature (See column 1, lines 5-13), and suitable for use in a **sealing** material (See column 2, line 1); the composition containing as a main component an *acrylate* or *methacrylate* polymer having a moisture reactive silicon functional groups in at least one polymer chain end and capable of providing an elastomeric cured product (See column 2, lines 3-8). The polymer having an organic silicon group in the chain end is prepared by polymerizing (a) a *monomer* comprising an acrylic or methacrylic acid ester of the general formula (I)  $\text{CH}_2=\text{C R}^1\text{COOR}^2$  wherein  $\text{R}^1$  is hydrogen atom or methyl group, and  $\text{R}^2$  is an alkyl group having 1 to 14 carbon atoms (See column 2, lines 12-25) such as **methyl** group (See column 3, lines 5-10). Thus, the reactive silicon containing *acrylate* or *methacrylate* polymer has  $\text{COOCH}_3$  group (claimed  $\text{COOCH}_3$  group-containing compounds).

Isayama et al fails to teach that that both reactive silicon containing *acrylate* **and** *methacrylate* polymers are used in the sealing composition (claim 1).

It is well settled that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose.



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used both reactive silicon containing *acrylate* **and** *methacrylate* polymers in a composition of Isayama et al with the expectation of providing the desired sealing elastomeric cured product.

11. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isayama et al, as applied above, further in view of Kiel (US 3,522,075) (hereafter “Kiel”).

Isayama et al fails to teach that sealant may be used in combination with a transparent material (Claim 1) such as a building material (Claim 4), e.g. glass (Claim 3) having an anti-staining layer on the surface thereof (Claim 1) such as a photocatalyst (Claim 2).

Kiel teaches that an adhesion of a curable organopolysiloxane resin-based composition (See column 5, lines 5-8) to a glass surface may be substantially increased by coating the glass surface with a metal oxide such as titanium dioxide (claimed photocatalyst) (See column 2, lines 14-16) before applying a curable organopolysiloxane resin-based coating (See column 1, lines 42-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a curable organopolysiloxane resin-based sealant in the cited prior art for sealing glass surface that is coated with a metal oxide such as titanium dioxide before applying a curable silicon containing composition of Isayama et al with the expectation of providing the desired substantially increased adhesion of the silicone-based sealant to the glass surface, as taught by Kiel.



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12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isayama et al *or* Isayama et al in view of Kiel, as applied above, further in view of Kharlamova et al (RU 2005112).

Isayama et al teaches that in case of preparing the curable composition intended for use as a **sealing** material, there may be incorporated in the composition, *plasticizer*, filler, reinforcement, antisagging agent, coloring agent, age resister, adhesion accelerator, curing catalyst and modifier for adjusting physical properties (See column 8, lines 37-44). Examples of the plasticizer are a phthalate such as **dibutyl phthalate**, diheptyl phthalate, di(2-ethylhexyl)phthalate, butylbenzyl phthalate or butylphthalylbutyl glycolate; a non-aromatic dibasic acid ester such as dioctyl adipate or dioctyl sebacate; or mixtures thereof (See column 8, lines 38-56).



Isayama et al fails to teach that the plasticizer is an acryl-based plasticizer.

Kharlamova et al teaches that either dibutyl phthalate or oligoether acrylate may be as a plasticizer in a coating composition (See Abstract). In other words, Kharlamova et al teaches that oligoether acrylate is suitable for the use as a plasticizer in a coating composition. It is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used oligoether acrylate (claimed acryl based plasticizer) as a plasticizer in the cited prior art since Kharlamova et al teaches that oligoether acrylate is suitable for the use as a plasticizer in a coating composition.

#### ***Response to Arguments***

13. Applicant's arguments with respect to claims 1-5 and 7 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.  
Primary Examiner  
Art Unit 1792

March 10, 2009

/Elena Tsoy Lightfoot/